

Question Bank

Grade 7- Science

Chapter 5-Physical and Chemical Changes

Answer the following questions:

- 1. Why is it important to stir the water and gradually add copper sulphate powder?
- 2. What would happen if the saturated solution were not filtered immediately after adding the copper sulphate powder?
- 3. Explain why allowing the saturated solution to cool slowly is essential for growing well-formed copper sulphate crystals.
- 4. Why is the chemical formula of a molecule fixed?
- 5. Do you think the number of atoms in reactants is different from the number of atoms in products? Discuss.
- 6. How does the formation of water (H2O) from hydrogen (H2) and oxygen (O2) represent a combination reaction?
- 7. What is a decomposition reaction, and how does it differ from a combination reaction?
- 8. In the nail rusting experiment, how can you prevent rust formation?
- 9. Explain a combination reaction with an example. Write the relevant balanced equation.
- 10. Explain with examples how chemical changes differ from physical changes, and why it is important to distinguish between the two in daily life?
- 11. Complete the following reaction

Ca (OH)2 + CO2 \rightarrow

- 12. What is the nature of magnesium oxide solution?
- 13. Write the differences between physical and chemical changes.

Balance the following equation:

14. N₂+H₂----- NH₃

15. K+H₂O--□KOH +H₂

16. $H_2O ---\Box H_2+O_2$

17. What happens when an iron blade of a knife is dipped in a copper sulphate solution? What kind of change takes place?

18. Rahul was a student of Class VII. His father purchased a new bicycle for him on his birthday. After few months, he found that the cycle chain and even the handle gets rusted. His father advised him to apply a coating of paint to the cycle and not to keep it in the open in future.

Now, answer the following questions:

- (a) Why his cycle gets rusted?
- (b) What do you mean by rusting of iron?
- (c) What values are shown by Rahul's father?

19. When baking soda is mixed with vinegar, bubbles are formed with the evolution of a gas. Name the gas evolved. What happens when this gas is passed through lime water?

20. Why cannot a chemical change be normally reversed?